

APPENDIX P
PERCOLATION TESTS

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APPENDIX P

PERCOLATION TESTS COLUSA POWER PLANT FOR RELIANT ENERGY

An onsite percolation test program was conducted to provide a design basis for a sanitary wastewater effluent septic tank/leach field system. The work was performed by Lux Engineering & Surveying, Inc. of Yuba City, California acting as a subcontractor to URS Corporation.

A profile of the uppermost 8 feet of soil (soil mantle) was obtained by digging backhoe pits at four locations illustrated on Figures P-1 and P-2 (locations 106, 200, 201, and 211). The logs of these four pits are presented on Table P-1.

Six percolation tests were conducted at the locations indicated on Figure P-2 (locations 202 through 207), in accordance with procedures prescribed by the U.S. Department of Health, Education and Welfare, Public Health Service, *Manual of Septic Tank Practice* (Publication No. 526, Revised 1967). Field logs of the six percolation tests are presented on Attachment P1 (2 pages).

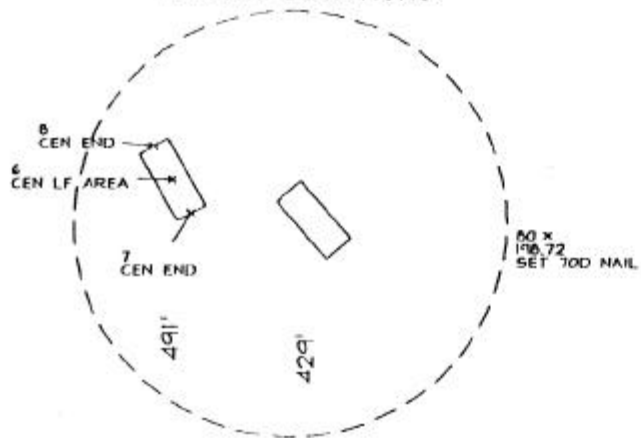
A leach field design will be prepared for approval by the Colusa County Health and Human Services Department, Environmental Health Division, based on the results of the percolation test program.

Table P-1 Soil Mantles for the Colusa Power Plant Site	
Number 106 (Area of Percolation Tests)	
0" to 34"	Dark Brown Clay – Slightly Moist Some Sandy Silt-Roots
34" to 60"	Dark Brown Moist Heavy Clay
60" to 100"	Light Colored Clay (Tan and White) – Friable Dry Not Much Moisture. Breaks into Small Pieces.
End of hole – no water encountered	
Number 200	
0" to 30"	Dark Brown Clay – Moist, Loose and Roots
30" to 48"	Light Brown Clay
48" to 60"	Light Brown Clay, Friable Some Sand
60" to 82"	Light Colored Clay (White) Friable Some Sand
82" to 96"	Light Colored Sandy Clay
End of hole – no water encountered	
Number 201	
0" to 30"	Dark Brown Clay – Slightly Moist Some Sandy Silt – Roots
30" to 66"	Dark Brown Moist Heavy Clay
66" to 84"	Light Colored Clay (Tan) – Friable Dry Not Much Moisture
84" to 96"	Light Colored Clay (Also White in Color, Breaks into Small Pieces)
End of hole – no water encountered	
Number 211	
0" to 39"	Dark Brown Clay – Dry Not Much Moisture Material Loose to 28"
39" to 96"	Clay White in Color, Some Sand, Friable
End of hole – no water encountered	
Notes: See Figures P-1 and P-2 for location of hole numbers Test holes were dug on April 19, 2001.	

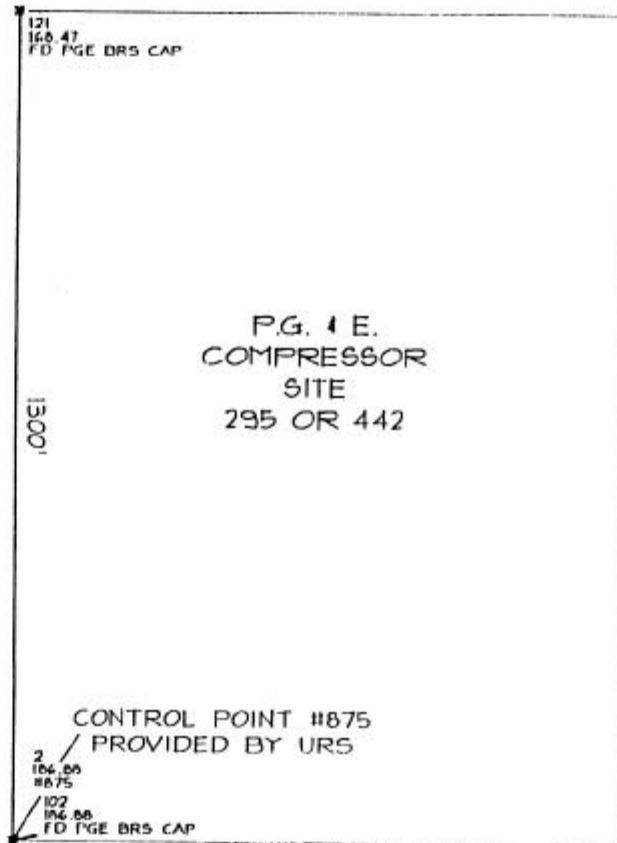
ATTACHMENT P1
FIELD LOG OF PERCOLATION TABLES

1
215.56
T-BAR
101
215.47
FD T-BAR
CONTROL POINT III
PROVIDED BY URS

SEE SHEET 2 OF 2
FOR PERK HOLES &
MANTLE LOCATIONS



APPROX SEC LINE

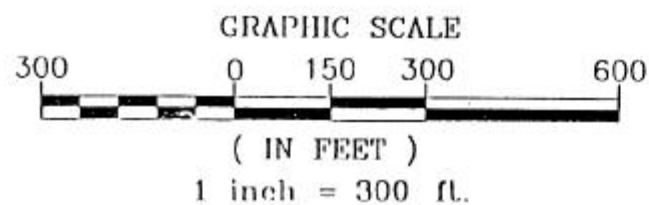


SCALE: 1" = 300'

APPROX SEC LINE

1185'
965'

APPROX SEC LINE



SEPTIC SYSTEM DESIGN

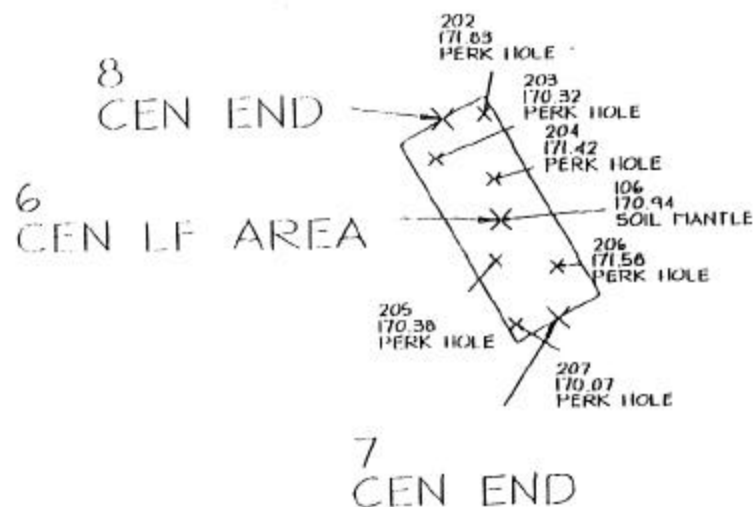
FOR
URS / RELIANT

ELUX ENGINEERING &
SURVEYING INC.
(530) 673-9329
FAX 673-9459 P.O. BOX 3325
890 KLAWATH LANE SUITE 9
YUBA CITY, CA 95992-3325

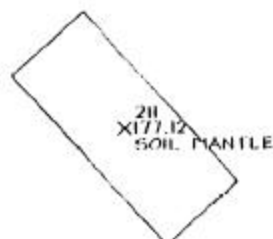
BY JRM

DATE: APRIL 20, 2001
JOB NO.: 2001-042

FIGURE P-1



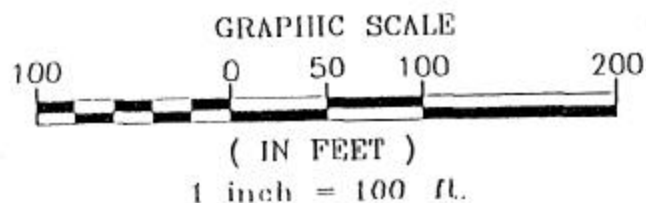
201
X185.24
SOIL MANTLE



80 x
198.72
SET 70D NAIL

NOTE: ALL ELEVATIONS
ARE EXSITING GROUND
FOR PERK HOLES &
MANTLE LOCATIONS

200
X172.51
SOIL MANTLE



SEPTIC SYSTEM DESIGN

FOR
URS / RELIANT

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900 KIAMATH LANE, SUITE 9
YUBA CITY, CA 95992-3325

DATE: APRIL 20, 2001
JOB NO.: 2001-042

FIGURE P-2

6. Now the test may begin. A board should be laid across the hole to give a fixed reference point. Add 6" of water and record the time in Column A and the distance from this reference board to the water in Column B of the chart. In 30 minutes again read the distance from the reference board to the water and record in Column C. Enter the time in Column A of the next time period. Repeat this process for 8 half hour intervals. When it is necessary to bring the water level back to the starting point, (this should be 6" from the bottom) record the distance in Column B of the appropriate time slot.

7. If the hole consistently drains in less than 30 minutes, make the readings at 10 minute intervals for 8 readings.

8. In addition to the percolation tests an eight foot deep soil mantle is to be dug in the area of the leachfield to expose the soil profile. A backhoe excavation is best. This requirement may be waived as allowed by County Ordinance.

Perc Hole #1202 36"			Perc Hole #1203 36"			Perc Hole #1204 36"		
Total Depth			Total Depth			Total Depth		
A	B	C	A	B	C	A	B	C
Time	Depth to Water		Time	Depth to Water		Time	Depth to Water	
	6" Fill	Ending		6" Fill	Ending		6" Fill	Ending
9:44A.M	2'4 1/2"		9:46AM	2'4 1/2"		9:48AM	2'5"	
10:14AM		2'4 3/4"	10:16AM		2'4 3/4"	10:18AM		2'5 1/4"
10:44AM		2'5 1/4"	10:46AM		2'4 3/4"	10:48AM		2'5 1/4"
11:14AM		2'5 3/4"	11:16AM		2'5"	11:18AM		2'5 3/4"
11:44AM		2'6"	11:46AM		2'5 1/8"	11:48AM		2'5 3/4"
12:14PM		2'6"	12:16PM		2'5 1/4"	12:18PM		2'6"
12:44PM		2'6"	12:46PM		2'5 1/2"	12:48PM		2'6 1/4"
1:14PM		2'6 1/4"	1:16PM		2'5 1/2"	1:18PM		2'6 1/4"

HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE STATEMENTS MADE ABOVE ARE TRUE AND CORRECT AND THAT THE ABOVE PERCOLATION TESTS WERE DONE IN ACCORDANCE WITH THE INSTRUCTIONS AND THE RESULTS RECORDED ARE TRUE AND CORRECT.

24. APR. 01

Date of Test

CHARLES DE ST MAURICE

Name of Person Conducting Test

Signature of Registered Person

Registration or SCL Type and Number

LEO HELTHOUSE ETAL

Owner (Please Print)

APN: 11-040-24

Assessor Parcel Number

2100 S. 10th St. West of DELGAY RD

Job Address

Domestic Water Source

6. Now the test may begin. A board should be laid across the hole to give a fixed reference point. Add 6" of water and record the time in Column A and the distance from this reference board to the water in Column B of the chart. In 30 minutes again read the distance from the reference board to the water and record in Column C. Enter the time in Column A of the next time period. Repeat this process for 8 half hour intervals. When it is necessary to bring the water level back to the starting point, (this should be 6" from the bottom) record the distance in Column B of the appropriate time slot.

7. If the hole consistently drains in less than 30 minutes, make the readings at 10 minute intervals for 8 readings.

8. In addition to the percolation tests an eight foot deep soil mantle is to be dug in the area of the leachfield to expose the soil profile. A backhoe excavation is best. This requirement may be waived as allowed by County Ordinance.

Perc Hole #205 Total Depth 36"			Perc Hole #206 Total Depth 32"			Perc Hole #207 Total Depth 36"		
A	B	C	A	B	C	A	B	C
Time	Depth to Water 6" Fill	Ending	Time	Depth to Water 6" Fill	Ending	Time	Depth to Water 6" Fill	Ending
9:50AM	2'6 1/4"		9:52AM	1'11 3/4"		9:54AM	2'10 1/4"	
10:20AM		2'6 1/2"	10:22AM		1'11 3/4"	10:24AM		2'10 1/2"
10:50AM		2'6 1/2"	10:52AM		1'11 3/4"	10:54AM		2'11"
11:20AM		2'6 3/4"	11:22AM		1'11 3/4"	11:24AM		2'11 1/4"
11:50AM		2'6 3/4"	11:52AM		2'0"	11:54AM		2'11 1/2"
12:20PM		2'7"	12:22PM		2'0"	12:24PM		2'11 1/2"
12:50PM		2'7 1/2"	12:52PM		2'1/4"	12:54PM		2'11 3/4"
1:20PM		2'7 3/4"	1:22PM		2'1/2"	1:24PM		3'1/4"

HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE STATEMENTS MADE ABOVE ARE TRUE AND CORRECT AND THAT THE ABOVE PERCOLATION TESTS WERE DONE IN ACCORDANCE WITH THE INSTRUCTIONS AND THE RESULTS RECORDED ARE TRUE AND CORRECT.

24 APR 01

Date of Test

CHARLES D G ST MAURICE

Name of Person Conducting Test

Lawrence P. Durr

Signature of Registered Person

CA REG 17809

Registration or SCL Type and Number

LEO HOLTHOUSE ET AL

Owner (Please Print)

APNo. 11-040-24

Assessor Parcel Number

DARK RD. 1 mile west of Delmon Rd

Job Address

Domestic Water Source